Claims

[c1]   What is claimed is:

1.A method for testing a communication module, the communication module capable of coding a first original header signal as a first check signalby a first coding means, and outputting an output header signal by whitening the first original header signal and the first check signalwith a clock code according to a second coding means , the method comprising:

obtaining the output header signal;

generating a guessing clock code;

dewhitening the output header signal into a second original header signal and a second check signal by a third decoding means with the guessing clock code;

utilizing the first coding meansto form a third check signal from the second original header signal; and

comparing the third check signalto the second check signal;

wherein the third decoding means is capable of decoding the output header signal into the first original header signal and the first check signal while the guessing clock code is substantially the same as the clock code.

[c2]   2.The method of claim 1 wherein the communication module utilizes a data coding meansand the clock code for coding an original data signal into a second data signal, and outputs the second data signal.

[c3]   3.The method of claim 2 further comprising:

obtaining the second data signal; and

utilizing a second data decoding meansand the guessing clock code to decode the second data signal into a third data signal if the third check signalis substantiallythe same as the second check signal;

wherein the second data decoding means is able to decode the second data signal into the original data signal while the guessing clock code is substantially the same as the clock code.

[c4]   4.The method of claim 3 further comprising testing the functionality of the communication module by comparing the original data signal to the second data signal.

[c5]   5.The method of claim 2 wherein the communication module is designed to process

the first original header signal and the original data signal according to a Bluetooth communication protocol standard.

[c6]   6.The method of claim 1 further comprising repeating the following steps until the third check signalis substantiallythe same as the second check signal:

refreshing a content of the guessing clock code;

decoding the output header signal according to the refreshed guessing clock code and the third decoding means;

refreshing the second original header signal and the second check signal according to the decoded output header signal;

refreshing the third check signal from the refreshed second original header signal by utilizing the first coding means; and

comparing the refreshed third check signal with the refreshed second check signal.

[c7]   7.The method of claim 6 wherein the clock code is a signal with a fixed bit length.

[c8]   8.The method of claim 7 wherein a number of times of refreshing the guessing clock code is not larger than half the bit size of the guessing clock code so that the second check signal and the third check signalare substantially the same.

[c9]   9.The method of claim 7 wherein the clock code is a six-bit signal.

[c10]

10.A recording medium for storing a test program capable of being executed on a computer for testing a communication module, the communication module generating a first check signal from a first original header signal according toa first coding means, and generating an output header signal according to a second coding meansthat utilizes the first original header signal, the first check signal, and a clock code, the checking program comprising:

obtaining the output header signal;

generating a guessing clock code;

decoding the output header signal into a second original header signal and a second check signal according to a third decoding meansand the guessing clock code;

forming a third check signal from the second original header signal according to the first coding means; and

comparing the third check signalwith the second check signal;

wherein the third decoding signal is capable of decoding the output header signal into

the first original header signal and the first check signalaccording to the clock code.

[c11] 11.The recording medium of claim 10 wherein the communication module is able to code an original data signal into a second data signal by utilizing a data coding means, and is capable of outputting the second data signal.

[c12] 12.Therecording medium of claim 11 wherein the checking program further comprises:
obtaining the second data signal; and
if the third check signal and the second check signalare substantially the same, decoding the second data signal into a third data signal according to a second data decoding meansthat uses the guessing code;
wherein the second data decoding means is able to decode the second data signal into the original data signal according to the clock code.

[c13] 13.The recording medium of claim 12 wherein the checking program further comprises comparing the original data signal with the second data signal to verify functionality of the communication module.

[c14] 14.The recording medium of claim 11 wherein the communication module is designed to process the first original header signal and the original data signal according to a Bluetooth communication protocol.

[c15] 15.The recording medium of claim 10 wherein the checking program comprises repeating following steps until the third check signal and the second check signal are substantially the same:
refreshing a content of the guessing clock code;
re-decoding the output header signal according to the third decoding meansand the refreshed guessing clock code;
refreshing the second original header signal and the second check signal according to the re-decoded output header signal;
refreshing the third check signal from the refreshed second original header signal according to the first coding means; and
comparing the refreshed third check signalwith the refreshed second check signal.

[c16] 16.The recording medium of claim 15 wherein the clock code is a signal with a fixed bit length.

[c17]   17. The recording medium of claim 16 wherein a number of times of refreshing the guessing clock code is not larger than half the bit size of the clock code so that the third check signal and the second check signalare substantially the same.

[c18]   18. The recording medium of claim 16 wherein the clock code is a six-bit signal.